

CLAIMS:

1. An electrodeposition coating composition comprising an ester compound selected from the group consisting of:
 - (a) a diester compound of polyoxyalkylene glycol and aliphatic monocarboxylic acid,
 - (b) a diester compound of polyoxyalkylene alkyl ether monoalcohol and aliphatic dicarboxylic acid and
 - (c) a polyester compound obtained by reaction of aliphatic glycol having 2 or 3 carbon atoms, aliphatic dicarboxylic acid and aliphatic monoalcohol.
2. The electrodeposition coating composition as described in claim 1, wherein the polyoxyalkylene glycol in the diester compound (a) is selected from polyethylene glycol, polypropylene glycol and polybutylene glycol.
3. The electrodeposition coating composition as described in claim 1, wherein the polyoxyalkylene glycol in the diester compound (a) has a weight average molecular weight falling in a range of 150 to 1000.
4. The electrodeposition coating composition as described in claim 1, wherein the aliphatic monocarboxylic acid in the diester compound (a) is aliphatic monocarboxylic acid having 6 to 10 carbon atoms, particularly 8 carbon atoms.
5. The electrodeposition coating composition as described in claim 4, wherein the aliphatic monocarboxylic acid is selected from hexanoic acid, heptanoic acid, caprylic acid, nonanoic acid, decanoic acid, 2-ethylhexenoic acid, isoctylic acid and neodecanoic acid.
6. The electrodeposition coating composition as described in claim 1, wherein the diester compound (a) has a weight average molecular weight falling in a range of 40 to 1200.
7. The electrodeposition coating composition as described in claim 1, wherein the polyoxyalkylene alkyl ether monoalcohol in the

diester compound (b) has an alkylene group having 2 to 4 carbon atoms and an alkyl group having 4 to 8 carbon atoms.

8. The electrodeposition coating composition as described in claim 1, wherein the polyoxyalkylene alkyl ether monoalcohol in the diester compound (b) has a weight average molecular weight falling in a range of 100 to 500.

9. The electrodeposition coating composition as described in claim 1, wherein the aliphatic dicarboxylic acid in the diester compound (b) is aliphatic dicarboxylic acid having 4 to 8 carbon atoms.

10. The electrodeposition coating composition as described in claim 9, wherein the aliphatic dicarboxylic acid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid and suberic acid.

11. The electrodeposition coating composition as described in claim 1, wherein the diester compound (b) has a weight average molecular weight falling in a range of 300 to 1200.

12. The electrodeposition coating composition as described in claim 1, wherein the aliphatic glycol in the diester compound (c) is selected from ethylene glycol, propylene glycol and 1,3-propanediol.

13. The electrodeposition coating composition as described in claim 1, wherein the aliphatic dicarboxylic acid in the diester compound (c) is aliphatic dicarboxylic acid having 4 to 8 carbon atoms.

14. The electrodeposition coating composition as described in claim 13, wherein the aliphatic dicarboxylic acid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid and suberic acid.

15. The electrodeposition coating composition as described in claim 1, wherein the aliphatic monoalcohol in the diester compound (c) is aliphatic monoalcohol having 4 to 13 carbon atoms.

16. The electrodeposition coating composition as described in claim 1, wherein the aliphatic monoalcohol is selected from butyl alcohol, hexyl alcohol, octyl alcohol, 2-ethylhexyl alcohol, isononyl alcohol, tridecanol and tridecyl alcohol.

17. The electrodeposition coating composition as described in claim 1, wherein the diester compound (c) has a weight average molecular weight falling in a range of 300 to 2000.

18. The electrodeposition coating composition as described in claim 1, wherein the electrodeposition coating composition is a cationically electrodeposition coating composition or an anionically electrodeposition coating composition.

19. The electrodeposition coating composition as described in claim 1, comprising the ester compound in a range of 0.5 to 20 parts by weight per 100 parts by weight of the resin solid matter of the electrodeposition coating composition.

20. The electrodeposition coating composition as described in claim 1, comprising the ester compound in a range of 1 to 10 parts by weight per 100 parts by weight of the resin solid matter of the electrodeposition coating composition.

21. An article coated with the electrodeposition coating composition as described in claim 1